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To	Examiner Alan D. Diamond, Group Art Unit 1753, Mail Stop Amendment,			703-872-9306	
From	Eunhee Park	+1 212 891 3577		+1 212 310 1677	
Client/Matter No.	22122878-75				
Re	Application no. 10/759,341				
Pages (w/cover)	66				

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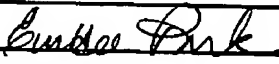
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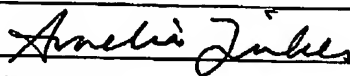
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TRANSMITTAL FORM	Application Number	10/759,341	
	Filing Date	1/16/2004	
	First Named Inventor	Anthony C. Zuppers	
	Art Unit	1753	
	Examiner Name	Alan D. Diamond	
(to be used for all correspondence after initial filing)		Attorney Docket Number	22122878-75
Total Number of Pages in This Submission			

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This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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22122878-75

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**RECEIVED**
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In re Application of: Anthony Zuppero et al.

Art Unit: 1753

Serial No.: 10/759,341

Examiner: DIAMOND, ALAN D

Filing Date: January 16, 2004

Date: January 21, 2005

**TITLE: IMPROVED DIODE ENERGY CONVERTER FOR CHEMICAL
KINETIC ELECTRON ENERGY TRANSFER**Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450**INFORMATION DISCLOSURE STATEMENT****S I R:**

1. In accordance with the duty of disclosure under 37 C.F.R. § 1.56 and in conformance with the procedures of 37 C.F.R. §§ 1.97 and 1.98 and M.P.E.P. § 609, attorneys for Applicants hereby bring the following references, which are listed on the attached modified PTO Form No. 1449 to the attention of the Examiner. It is respectfully requested that the information be expressly considered during the prosecution of this application, and that the references be made of record therein and appear among the "References Cited" on any patent to issue therefrom.

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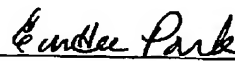

Amelia Finker

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2. Applicants respectfully request that the following co-owned patents and co-pending applications be considered and made of record in the present application:

US Patent Nos. 6,114,620; 6,218,608; 6,222,116; 6,268,560; 6,327,859; 6,700,056; 6,678,305; 6,649,823; and US Patent Application Nos. 09/682,363; 10/218,706; 10/185,086; 09/631,463; 10/625,801; 10/052,004. The references cited in each of those patents and applications are listed on Form 1449 accompanying this information disclosure statement.
3. Copies of the references listed on the modified PTO form 1449 will follow under separate cover by first class mail due to their volume.
4. This information disclosure statement is being filed under 37 C.F.R. § 1.97(b)(3), before the mailing date of a first Office action on the merits.
5. No fee is deemed necessary with the filing of these documents. If a fee is deemed necessary, we authorize the Commissioner of Patents and Trademarks to charge Deposit Account No.: 02-0393.

Respectfully submitted,



Eunhee Park
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Complete if Known

Application Number	10/759,341
Filing Date	1/16/2004
First Named Inventor	Anthony C. Zuppero
Art Unit	1753
Examiner Name	Alan D. Diamond
Attorney Docket Number	22122878-75

Examiner Initials*	Cite No. ¹	U. S. PATENT DOCUMENTS			
		Document Number Number-Kind Code ² (Patent)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		US- 20020070632	06-2002	Zuppero et al.	
		US- 4651324	03-1987	Prein et al.	
		US- 5337329	08-1994	Foster, Jack	
		US- 4756000	07-1988	Macken, John A.	
		US- 5999547	12-1999	Schneider et al.	
		US- 5048042	09-1991	Moser et al.	
		US- 5587827	12-1996	Hakimi et al.	
		US- 4012301	03-1977	Rich et al.	
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Art Unit	1753
Examiner Name	Alan D. Diamond
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U.S. PATENT DOCUMENTS

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Attorney Docket Number	22122878-75

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		Filing Date	1/16/2004
		First Named Inventor	Anthony C. Zuppero
		Art Unit	1753
		Examiner Name	Alan D. Diamond
		Attorney Docket Number	22122878-75

Sheet 1 of 1

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		HARRISON, P. et al., The Carrier Dynamics of Far-Infrared Intersubband Lasers and Tunable Emitters, Institute of Microwaves and Photonics, University of Leeds, U.K., pp. 1-64	
		WEBER, et al., to X2 Electron Transfer Times in Type-II GaAs/AlAs Superlattices Due to Emission of Confined and Interface Phonons, Superlattices and Microstructures, Vol. 23, No. 2 (1998).	
		FANN, W.S. et al., Electron Thermalization in Gold, Physical Review B, Brief Reports, Vol. 46, No. 20, (1992)	
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		LEWIS et al., Vibrational Dynamics of Molecular Overlayers on Metal Surfaces, Dept. of Chemistry, University of Pennsylvania, http://lorax.chem.upenn.edu/molisurf/cucotalk/html .	
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		HARRISON et al., Population Inversion and Gain Estimates for a Semiconductor TASER	
		HARRISON et al., Theoretical Studies of Subband Carrier Lifetimes in an Optically Pumped Three-Level-Terahertz Laser, Superlattices and Microstructures, Vol. 23, No. 2 (1998)	
		HARRISON et al., Room Temperature Population Inversion in SiGe TASER Designs, IMP, School of Electronic and Electrical Engineering, The University of Leeds	
		SUN et al., Phonon-Pumped Terahertz Gain in n-Type GaAs/AlGaAs Superlattices, Applied Physics Letters, Vol. 7; No.22 (2001)	

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		ALTUKHOV et al., Towards Si1-xGax Quantum-Well Resonant-State Terahertz Laser, Applied Physics Letters, Vol. 79, No. 24 (2001)	
		SUN et al., Intersubband Lasing Lifetimes of SiGe/Si and GaAs/AlGaAs Multiple Quantum Well Structures, Applied Physics Letters, Vol. 66, No. 25 (1995)	
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		SOREF et al., Terahertz Gain in a SiGe/Si Quantum Staircase Utilizing the Heavy-Hole Inverted Effective Mass, Applied Physics Letters, Vol. 79, No. 22 (2001)	
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		BAUMBERG et al., Ultrafast Acoustic Phonon Ballistics in Semiconductor Heterostructures, Physical Review Letters, Vol. 78, No. 17 (1997)	
		BEDURFTIG et al., Vibrational and Structural Properties of OH Adsorbed on Pt(111), Journal of Chemical Physics, Vol. 111, No. 24 (1999)	

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Sheet of **OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS**

Examiner Initials ¹	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
		VALDEN et al., Onset of Catalytic Activity of Gold Clusters on Titania with the Appearance of Nonmetallic Properties, Science, Vol. 281 (1998)	
		BONDZIE et al., Oxygen Adsorption on Well-Defined Gold Particles on TiO ₂ (110), J. Vac. Sci. Technol. A17(4) (1999)	
		BEZANT et al., Intersubband Relaxation Lifetimes in p-GaAs/AlGaAs Quantum Wells Below the LO-Phonon Energy Measured in a Free Electron Laser Experiment, Semicond. Sci. Technol. 14 (1999)	
		BRAKO et al., Interaction of CO Molecules Adsorbed on Metal Surfaces, Vacuum 61,89-93 (2001)	
		BURGI et al., Confinement of Surface State Electrons in Fabry-Perot Resonators, Physical Review Letters, Vol. 81, No. 24 (1998)	
		BURGI et al., Probing Hot-Electron Dynamics at Surfaces with a Cold Scanning Tunneling Microscope, Physical Review Letters, Vol. 82, No. 22 (1999)	
		CHANG, Y.M., Interaction of Electron and Cold Plasma with Coherent Longitudinal Optical Phonons in GaAs, Applied Physics Letter, Vol. 80, No. 14 (2002)	
		CHANG et al., Observation of Coherent Surface Optical Phonon Oscillations by Time-Resolved Surface Second-Harmonic Generation, Physical Review Letters, Vol. 78, No. 24 (1997)	
		CHANG et al., Coherent Phonon Spectroscopy of GaAs Surfaces Using Time-Resolved Second-Harmonic Generation, Chemical Physics 251, 283-308 (2000)	
		CHANG et al., Observation of Local-Interfacial Optical Phonons at Buried Interfaces Using Time-Resolved Second Harmonic Generation, Physical Review B, Vol. 59, No. 19 (1999)	
		CHEN et al., Stimulate-Emission-Induced Enhancement of the Decay Rate of Longitudinal Optical Phonons in III-V Semiconductors; Applied Physics Letters, Vol. 80, No. 16 (2002)	

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		CORCELLI et al., Vibrational Energy Pooling in CO on NaCl(100): Methods, Journal of Chemical Physics, Vol. 116, No. 18 (2002)	
		FIERZ et al., Time-Resolved 2-Photon Photoionization on Metallic Nanoparticles, Appl. Phys. B 68 (1999); http://www.lfp.physik.uni-essen.de/aeschlimann/abstract.htm#6	
		BEZANT et al., Intersubband Relaxation Lifetimes in p-GaAs/AlGaAs Quantum Wells Below the LO-Phonon Energy Measured in a Free Electron Laser Experiment, Semicond. Sci. Technol., 14 No. 8 (1999)	
		BONDZIE et al., Oxygen Adsorption on Well-Defined Gold Particles on TiO ₂ (110), Journal of Vacuum Science & Technology A: Vacuum, Surfaces and Films, Vol. 17, Issue 4, pp. 1717-1720 (1999)	
		HARRISON et al., Maximising the Population Inversion, by Optimizing the Depopulation Rate, in Far-Infrared Quantum Cascade Lasers (2001)	
		HARRISON et al., The Carrier Dynamics of Terahertz Intersubband Lasers, Some Publishing Company (1999)	
		FANN et al., Electron Thermalization in Gold, Physical Review B, Vol. 46, No. 20 (1992)	
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		CHIANG, T.C., Photoemission Studies of Quantum Well States in Thin Films, Surface Science Reports 39, pp. 181-235 (2000)	
		DEBERNARDI et al., Anharmonic Phonon Lifetimes in Semiconductors from Density-Functional Perturbation Theory, Physical Review Letters, Vol. 75, No. 9 (1995)	
		DAVIS et al., Kinetics and Dynamics of the Dissociative Chemisorption of Oxygen on Ir(111), J. Chem. Phys. 109 (3) (1997)	

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Application Number	10/759,341
Filing Date	1/16/2004
First Named Inventor	Anthony C. Zuppero
Art Unit	1753
Examiner Name	Alan D. Diamond
Attorney Docket Number	22122878-75

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		CHOI et al., Ultrafast Carrier Dynamics in a Highly Excited GaN Epilayer, Physical Review B, Vol. 63, 115315 (2001)	
		DIEKHONER et al., Parallel Pathways in Methanol Decomposition on Pt(111), Surface Science 409, pp. 384-391 (1998)	
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		de PAULA et al., to X2 Electron Transfer Times in Type-II Superlattices Due to Emission of Confined Phonons, Appl. Phys. Lett. 65 (10) (1994)	
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		ENGSTROM et al., Comparing the Vibrational Properties of Low-Energy Modes of a Molecular and an Atomic Adsorbate: CO and O on Pt(111), Journal of Chemical Physics, Vol. 112, No. 4 (2000)	
		GLAVIN et al., Generation of High-Frequency Coherent Acoustic Phonons in a Weakly Coupled Superlattice, Applied Physics Letters, Vol. 74, No. 23 (1999)	
		FRIEDMAN, SiGe/Si Thz Laser Based on Transitions Between Inverted Mass Light-Hole and Heavy-Hole Subbands, Applied Physics Letters, Vol. 78, No. 4 (2001)	
		ERMOSHIN et al., Vibrational Energy Relaxation of Adsorbate Vibrations: A theoretical Study of the H/Si(111) System, J. Chem. Phys. 105 (20) (1996).	
		GLAVIN et al., Acoustic Phonon Generation In A Superlattice Under the Hopping Perpendicular Transport, United Nations Educational Scientific and Cultural Organization and International Atomic Energy Agency (1998)	
		GERGEN et al., Chemically Induced Electronic Excitations at Metal Surfaces, Science, Vol. 294 (2001).	
		HAGSTON et al., Simplified Treatment of Scattering Processes in Quantum Well Structures, Journal of Applied Physics, Vol. 90, No. 3 (2001).	
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		HARRISON et al., Theoretical studies of Subband Carrier Lifetimes In an Optically Pumped Three-Level Terahertz Laser, Superlattices and Microstructures, Vol. 23, No. 2 (1998)	

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		HARRISON et al., The Carrier Dynamics of Far-Infrared Intersubband Lasers and Tunable Emitters, www.ee.leeds.ac.uk/homes/ph/	
		HESS et al., Hot Carrier Relaxation by Extreme Electron-LO Phonon Scattering in GaN	
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		LEWIS et al, Substrate-Adsorbate Coupling in Co-Adsorbed Copper, Physical Review Letters, Vol. 77, No. 26 (1996)	

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Examiner Name	Alan D. Diamond
Attorney Docket Number	22122878-75

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		KRAUSS et al., Coherent Acoustic Phonons in a Semiconductor Quantum Dot, Physical Review Letters, Vol. 79, No. 25 (1997)	
		LUGLI et al., Interaction of Electrons with Interface Phonons in GaAs/AlGaAs Heterostructures, Semicond. Sci. Technol. 7 (1992)	
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		PLIHAL et al., Role of Intra-Adsorbate Coulomb Correlations in Energy Transfer at Metal Surfaces, Physical Review B, Vol. 58, No. 4 (1998)	
		PAGGEL et al., Quantum-Well States as Fabry-Perot Modes in a Thin-Film Electron Interferometer, Science, Vol. 283 (1999)	
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		SOREF et al., Terahertz Gain in a SiGe/Si Quantum Staircase Utilizing the Heavy-Hole Inverted Effective Mass, Applied Physics Letters, Vol. 79, No. 22 (2001)	
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		SMIT et al., Enhanced Tunneling Across Nanometer-Scale Metal-Semiconductor Interfaces, Applied Physics Letters, Vol. 80, No. 14 (2002)	
		QIU et al., Long-Distance and Damping of Low-Frequency Phonon Polariton in LiNbO ₃ , Physical Review B, Vol. 56, No. 10 (1997)	
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		TAYLOR et al., Strong Electron-LO Phonon Scattering and Hot Carrier Relaxation in GaN, Abstract No. ba249KW3	
		SUN et al., Phonon-Pumped Terahertz Gain in n-Type GaAs/AlGaAs Superlattices, Applied Physics Letters, Vol. 78, No. 22 (2001)	
		TOM et al., Coherent Phonon and Electron Spectroscopy on Surfaces Using Time-Resolved Second-Harmonic Generation	
		TIUSAN et al., Quantum Coherent Transport Versus Diode-Like Effect in Semiconductor-Free Metal/Insulator Structure, Applied Physics Letters, Vol. 79, No. 25 (2001)	
		STROMQUIST et al., The Dynamics of H Absorption in and Adsorption on Cu(111), Surface Science 397, pp. 382-394 (1998)	
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		WEBER et al., Carrier Capture Processes in GaAs-AlGaAs Quantum Wells Due to Emission of Confined Phonons, Appl. Phys. Lett. 63 (22) (1993)	
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	2	VALDEN et al., Onset of Catalytic Activity of Gold Clusters on Titania with The Appearance of Nonmetallic Properties, Science, Vol. 281 (1998)	
	3	XU et al., Electrical Generation of Terahertz Electromagnetic Pulses by Hot-Electrons in Quantum Wells, Superlattices and Microstructures, Vol. 22, No. 1 (1997)	
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Application Number	10/759,341
Filing Date	1/16/2004
First Named Inventor	Anthony C. Zuppero
Art Unit	1753
Examiner Name	Alan D. Diamond
Attorney Docket Number	22122878-75

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		HARRISON et al., The Carrier Dynamics of Far-Infrared Intersubband Lasers and Tunable Emitters, www.ee.leeds.ac.uk/homes/ph/	
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		SUN et al., Phonon Pumped SiGe/Si Interminiband Terahertz Laser	
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		GUMHALTER et al., Effect of Electronic Relaxation on Covalent Adsorption Reaction Rates, <i>Physical Review B</i> , Vol. 30, Issue 6 (1984)	
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		us- 6,119,651	09-19-2000	Anderson	
		us- 5,408,967	04-25-1995	Foster	
		us- 5,293,857	03-15-1994	Meyer	
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Attorney Docket Number	22122878-75

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		BONDZIB, V. A., et al.; "Oxygen adsorption ... gold particles ... TiO ₂ (110)"; J. Vac. Sci. Tech. A., (1999) 17, pp. 1717 and figure 3	
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		DIEKHONER, L., et al.; "Parallel pathways in methanol... Pt(111)"; Surf. Sci. 409 (1998) pp 384-391	
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		HO, Wilson; http://www.lassp.cornell.edu/lassp_data/wilsonho.html	

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		HUANG, Yuhui, et al.; "Vibrational Promotion of Electron Transfer"; SCIENCE, VOL 290, 6 OCTOBER 2000, pp 111 - 113	
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Art Unit	1753
Examiner Name	Alan D. Diamond
Attorney Docket Number	22122878-75

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet

of

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Application Number	10/759,341
Filing Date	1/16/2004
First Named Inventor	Anthony C. Zuppero
Art Unit	1753
Examiner Name	Alan D. Diamond
Attorney Docket Number	22122878-75

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Citation No.†	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume/issue number(s), publisher, city and/or country where published.	T ²
		FRESE, et al., "Analysis of Current/Voltage Curves at n-Si/SiO ₂ /Pt Electrodes", J. Electrochem. Soc., December 1994, pp. 3375-3382, Vol. 141, No. 12, The Electrochemical Society, Inc.	
		FRESE, et al., "Methanol Oxidation at p-Si/Pt Electrodes, Evidence for Hot Hole Reactivity", J. Phys. Chem., 1995, pp. 6074-6083, Vol. 99, American Chemical Society.	
		GADZUK, "Multiple Electron Processes in Hot-Electron Femtochemistry at Surfaces", http://www.csl.nist.gov/div837/837.03/highlite/gadzuk1999.htm .	
		FRESE, et al., "Hot Electron Reduction at Etched n-Si/Pt Thin Film Electrodes", J. Electrochem. Soc., September 1994, pp. 2402-2409, Vol. 103, The Electrochemical Society Inc.	
		GAILLARD, et al., "Hot Electron Generation in Aqueous Solution at Oxide-Covered Tantalum Electrodes, Reduction of Methylpyridinium and Electrogenenerated Chemiluminescence of Ru(bpy) ₃ ²⁺ ", J. Phys. Chem., 1999, pp. 667-674, Vol. 103, American Chemical Society.	
		SUNG, et al., "Demonstration of Electrochemical Generation of Solution-Phase Hot Electrons at Oxide-Covered Tantalum Electrodes by Direct Electrogenenerated Chemiluminescence", J. Phys. Chem., 1998, pp. 9797-9805, Vol. 102, American Chemical Society.	
		ZHDANOV, et al., "Substrate-mediated photoinduced chemical reactions on ultrathin metal films", Surface Science, 1999, pp. L599-L603, Vol. 432, Elsevier Science B.V.	

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**INFORMATION DISCLOSURE
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Sheet of **Complete if Known**

Application Number	10/759,341
Filing Date	1/16/2004
First Named Inventor	Anthony C. Zuppero
Art Unit	1753
Examiner Name	Alan D. Diamond
Attorney Docket Number	22122878-75

U.S. PATENT DOCUMENTS					
Examiner Initials ¹	Cite No. ²	Document Number Number-Kind Code ³ (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		US- 6,232,546	05-15-2001	DIMATICO et al.	
		US- 6,396,191	05/28/2002	Hagelstein et al.	
		US- 5,037,162	10/15/1991	Nelson	
		US- 5,593,509	01/14/1997	Zuppero et al.	
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		First Named Inventor	Anthony C. Zuppero
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		Examiner Name	Alan D. Diamond
		Attorney Docket Number	22122878-75
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		MAHAN, G. D. et al., "Multilayer thermionic refrigerator and generator," Journal of Applied Physics, Vol. 83, No. 9, 1 May 1998.	
		STIPE, B. C. et al., "Atomistic studies of O2 dissociation on Pt(111) induced by photons, electrons, and by heating," J. of Chem. Phys., Vol. 107 (16), October 22, 1997, pp. 6443 - 6447.	
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		BONN, M. et al., "Phonon-Versus Electron-Mediated Desorption and Oxidation of CO on Ru(0001)," Science, Vol. 285, No. 5430, Issue of 13 August 1999, pp. 1042-1045.	
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		GAO, Shiwu, "Quantum kinetic theory of vibrational heating and bond breaking by hot electrons," Physical Review B, Vol. 55, No. 3, 15 Jan 1997-I, pp. 1876-1886.	
		HOU, H. et al., "Enhanced Reactivity of Highly Vibrationally Excited Molecules on Metal Surfaces," Science, Vol. 284, No. 5420, Issue of 4 Jun 1999, pp. 1647-1650.	
		NIENHAUS, H. et al., "Direct detection of electron hole pairs generated by chemical reactions on metal surfaces," Surface Science 445 (2000) pp. 335-342.	
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		GAILLARD, Frederic et al., "Hot electron generation in aqueous solution at oxide-covered tantalum electrodes. Reduction of methylpyridinium and electrogenerated chemiluminescence of Ru(bpy)32+," Journal of Physical Chemistry B., Vol. 103, No. 4, January 28 1999, pp. 667-74.	
		ENGSTROM, Ulrika and RYBERG, Roger, "Comparing the vibrational properties of low-energy modes of a molecular and an atomic adsorbate: CO and O on Pt (111)," Journal Of Chemical Physics, Vol. 112, No. 4, 22 January 2000, pp. 1959-1965.	

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		NOLAN, P. D. et al., "Molecularly chemisorbed intermediates to oxygen adsorption on Pt (111): A molecular beam and electron energy-loss spectroscopy study," Journal Of Chemical Physics, Vol. 111, No. 8, 22 August 1999.	
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		SUNG, Yung-Eun et al., "Enhancement of electrochemical hot electron injection into electrolyte solutions at oxide-covered tantalum electrodes by thin platinum films," Journal of Physical Chemistry B., Vol. 102, No. 49, December 3 1998, pp. 9806-11.	
		ZHDANOV, V. P. et al., "Substrate-mediated photoinduced chemical reactions on ultrathin metal films," Surface Science, Vol. 432 (#3), pp. L599-L603, July 20, 1999.	
		NIENHAUS, H., "Electron-hole pair creation by reactions at metal surfaces," American Physical Society, Centennial Meeting Program, March 20-26, 1999, Atlanta, GA, Session SC33 - Metal Surfaces: Adsorbates. http://www.aps.org/meet/CENT99/BAPS/	
		NIENHAUS, H et al., "Electron-Hole Pair Creation at Ag and Cu Surfaces by Adsorption of Atomic Hydrogen and Deuterium," Physical Review Letters, Vol. 82, Issue 2, January 11, 1999, pp. 446-449.	

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Application Number	10/759,341
Filing Date	1/16/2004
First Named Inventor	Anthony C. Zuppero
Art Unit	1753
Examiner Name	Alan D. Diamond
Attorney Docket Number	22122878-75

Sheet _____ of _____

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U. S. PATENT DOCUMENTS					
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	1	US-6,537,829	03-2003	Zarling et al.	
		US-6,444,476	09-2002	Morgan, Christopher Grant	
		US-6,399,397	06-2002	Zarling et al.	
		US-6,312,914	11-2001	Kardos et al.	
		US-6,251,687	06-2001	Buechler et al.	
		US-6,238,931	05-2001	Buechler et al.	
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		US-5,891,856	04-1999	Zarling et al.	
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		Number-Kind Code ² (if known)			
		US-2003/0207331	11-2003	Wilson et al.	
		US-2003/0166307	09-2003	Zuppero et al.	
		US-2003/0100119	05-2003	Weinberg et al.	
		US-2003/0030067	02-2003	Chen, Wei	
		US-2003/0019517	01-2003	McFarland, Erick W.	
		US-2002/0121088	09-2002	Zuppero et al.	
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	3	US-5,698,397	12-1997	Zarling et al.	
	4	US-5,674,698	10-1997	Zarling et al.	
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		WO 01/28677A1	04-2001	Zuppero et al.		
		JP-02157012A	06-1990			

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Application Number	10/759,341
Filing Date	1/16/2004
First Named Inventor	Anthony C. Zuppero
Art Unit	1753
Examiner Name	Alan D. Diamond
Attorney Docket Number	22122878-75

U.S. PATENT DOCUMENTS

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OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

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		ACHERMANN, M. et al., "Carrier dynamics around nano-scale Schottky contacts: a femtosecond near-field study", <i>Applied Surface Science</i> 7659 (2002) 1-4.	
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		GAILLARD, F. et al., "Hot electron generation in aqueous solution at oxide-covered tantalum electrodes. Reduction of methylpyridinium and electrogenerated chemiluminescence of Ru(bpy) ₃ 2+", Journal of Physical Chemistry B, Vol. 103, No. 4, January 28, 1999, pages 667-74.
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Attorney Docket Number	22122878-75

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Application Number	10/759,341
Filing Date	1/16/2004
First Named Inventor	Anthony C. Zuppero
Art Unit	1753
Examiner Name	Alan D. Diamond
Attorney Docket Number	22122878-75

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		G. SUN et al., "Phonon-pumped terahertz gain in n-type GaAs/AlGaAs Superlattices, Applied Physics Letters, Volume 78, Number 22, Pages 3520-3522.	
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		G. SUN, R.A. Soref, J.B. KHURGIN; "Phonon Pumped SiGe/Si Interminiband Terahertz Laser".	

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		P. ARMOUR et al., "Hot-electron transmission through metal-metal interfaces: a study of Au/Fe/Au trilayers in GaAs substrates", Applied Surface Science 123/124 (1998), Pages 412-417.	
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		US- 6,114,620	09-05-2000	Zuppero et al	
		US- 5,641,585	01-24-1997	Lessing et al	
		US- 5,593,509	01-14-1997	Zuppero et al	
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